

Introduction

Dilation and curette is commonly performed in which conscious sedation, regional and or general anesthesia is administered. At times D&C can be accomplished with paracervical block. Auroy discovered of 103,730 regional anesthetics, 26 patients suffered seizures. Of those 26 patients, none of the patient had received a paracervical block. (6) Lidocaine is the most frequent used agent for paracervical block anesthesia. (1) Accidental Intravascular injection or overdose of lidocaine can depress or stimulate the CNS. (2) Aspiration prior to injection of local anesthetic alerts the surgeon to the possibility of intravascular injection. Maximum recommended dosages are 4.5mg/kg of lidocaine without epinephrine or 7mg/kg of lidocaine with epinephrine. (3) Usually no more than 200mg, or 20ml of a 1% solution, is needed for a paracervical block. (1)

In the patients who suffered a seizure, a large volume of 2% lidocaine (41 ± 14 ml) was injected for the regional anesthetic. (6) Toxic reactions to lidocaine may be acute or delayed. The reactions are usually CNS, cardiovascular, or allergic in nature. Within the CNS, toxicity is a spectrum, extending from excitation to convulsions. (5) CNS toxicity usually presents with symptoms of CNS stimulation such as anxiety, restlessness, dizziness, tremors, or seizures. Alternatively, hypotension, sinus bradycardia or other arrhythmia, cardiovascular collapse, and death may occur.

a 22-yr-old female with no seizure history who, during recovery from intravenous sedation and paracervical block experiences tonic-clonic motor activity more consistent with pseudoseizures than local anesthetic toxicity induced seizure activity.

Case Summary

A 22-yr-old female (American Society of Anesthesiologist physical status I) presented for a D&C from a missed abortion. The patient was 63kg and reported a negative review of systems. She was taking no medications and asserted no drug or alcohol use in the last 3 months. The patient was 14 weeks pregnant and had no known drug allergies. There was no personal or family history of seizures or neurological disorders. Hemoglobin, electrolytes, and plasma glucose level all were normal. The previous surgical history revealed a previous D&E three months prior under general anesthesia without difficulties. During the preoperative interview, the patient was noted to be extremely anxious and agitated.

The surgeon requested intravenous sedation with a lidocaine paracervical block to be performed by the surgeon. The patient was premedicated with 3mg midazolam intravenously and brought to the operating room. Standard anesthesia monitors were applied. Oxygen was applied per nasal cannula at 2L/min. The patient's anxiety after the intravenous midazolam was greatly reduced.

Patient's lower extremities were placed in candy canes. Sedation was provided by titration with propofol, fentanyl and lidocaine intravenously. Total medications administered were propofol (110mg), fentanyl (100mcg) and lidocaine (40mg).

The surgeon performed the paracervical block utilizing 10cc of 1% lidocaine. Surgeon aspirated prior to injection. The patient maintained spontaneous respirations throughout the case, but was essentially unresponsive due to the heavy intravenous sedation. The patient remained hemodynamically stable and the surgical procedure was complete without incidence.

Upon arrival to the recovery room, the patient remained free of discomfort. Vital signs stable and oxygen saturation 100%. Approximately 10 minutes after recovery room admission, the patient experienced “tonic-clonic” seizure like activity. After the initial seizure activity the patient was able to follow commands and did not appear to follow a traditional post-dictal response. She moved her lower extremities rhythmically and ran her upper extremities over her abdomen. The oxygen saturation remained 100% O₂ being administered via blow-by and vital signs stable. Midazolam (6mg) was administered. The rhythmic tonic-clonic activity continued and neurology was eventually consulted.

The neurologist first impression was pseudoseizure activity. The EEG was performed with negative findings. Approximately 50 minutes after activity began, the rhythmic activity stopped without any intervention. The patient became somnolent; advertently drifted to sleep and woke 20 minutes later. The patient had zero recall of operating room or recovery room time spent. She was oriented to person, place, date and recognized surgery staff.

The patient was admitted to the ward for observation. No seizure-like activity was noted for the patient. The patient was consulted prior to discharge with eventually zero recall of PACU events and discharged home.

Discussion

Pseudoseizures are one of the most difficult mimickers of seizures. Careful consideration of other paroxysmal events is important, because management depends on diagnosis. The first step is to determine if the event is truly a seizure. Characteristics of pseudoseizures are gradual onset, long duration, fluctuation of consciousness, flailing, thrashing, and responding to suggestions that activity will stop. (7) Pseudoseizures are generally unresponsive to pharmacological intervention such as midazolam and unlike local toxicity induced seizure activity. (5) In Auroy's findings, all reported warning signs of increase systemic concentrations of local anesthetic preceded seizures after regional anesthesia. (6) After thorough contemplation the author believes that lidocaine toxicity caused seizure was not what the patient had suffered.

Most frequently the diagnosis of pseudoseizure is the expression of an unconscious emotional conflict. A history of sexual abuse, anxiety, emotional disorders and traumatic histories is common and may aid in the diagnosis of a pseudoseizure. For some patient pseudoseizure may be a tool for managing the environment under stressful circumstances. (5) In conclusion, the case report described earlier demonstrates a young woman in whom all of the differential diagnosis's for seizure was carried out and

determined to be negative. She was found by neurology to be experiencing a psychogenically inducing pseudoseizure. This possibility should be kept in mind when treating such patients.

References

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